

Title (en)
DISPLAY DEVICE

Title (de)
ANZEIGEVORRICHTUNG

Title (fr)
DISPOSITIF D'AFFICHAGE

Publication
EP 4030484 A1 20220720 (EN)

Application
EP 22151041 A 20220111

Priority
KR 20210004602 A 20210113

Abstract (en)
A display device includes a first substrate (110), pixel structures (200), and first, second, and third optical filters (531, 532, 533). The first substrate has a plurality of pixel regions each including first, second, and third sub-pixel regions (31, 32, 33) . The pixel structures are disposed on the first substrate. The first, second, and third optical filters are disposed to overlap the first, second, and third sub-pixel regions, respectively, on the pixel structures. Each of the first, second, and third optical filters has a tetragon shape. A long axis of the tetragon is parallel to row or column directions of the pixel regions. The third optical filter (533) overlaps a first virtual line located between a side of the first optical filter (531) and a side of the second optical filter (532) which is adjacent to the side of the first optical filter. The first virtual line extends parallel to the sides of the first and second optical filters.

IPC 8 full level
H01L 27/32 (2006.01)

CPC (source: CN EP KR US)
G02B 5/201 (2013.01 - KR); **G02B 5/22** (2013.01 - US); **H10K 50/865** (2023.02 - KR); **H10K 59/12** (2023.02 - CN); **H10K 59/126** (2023.02 - CN); **H10K 59/35** (2023.02 - KR); **H10K 59/38** (2023.02 - CN EP KR); **G02B 2207/101** (2013.01 - US)

Citation (search report)
• [XY] KR 20200135727 A 20201203 - SAMSUNG DISPLAY CO LTD [KR]
• [X] US 2016365397 A1 20161215 - SEO JUN-SEON [KR], et al
• [X] CN 111312792 A 20200619 - SHANGHAI TIANMA MICROELECTRONICS CO LTD
• [Y] EP 3678186 A1 20200708 - SAMSUNG DISPLAY CO LTD [KR]
• [Y] US 2020217998 A1 20200709 - JUNG MINSIK [KR], et al
• [E] EP 3982418 A1 20220413 - SAMSUNG DISPLAY CO LTD [KR]

Designated contracting state (EPC)
AL AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC MK MT NL NO PL PT RO RS SE SI SK SM TR

Designated extension state (EPC)
BA ME

DOCDB simple family (publication)
EP 4030484 A1 20220720; CN 114765206 A 20220719; KR 20220102689 A 20220721; US 2022221637 A1 20220714

DOCDB simple family (application)
EP 22151041 A 20220111; CN 202210037566 A 20220113; KR 20210004602 A 20210113; US 202117496378 A 20211007